

CLAIMSWhat is Claimed is:

- 1           1.       A loop antenna system configured within a confined space having an  
2 electronics printed circuit board, the loop antenna system comprising an antenna  
3 member configured to communicatively coupled with an electronic circuit on the printed  
4 circuit board and configured to provide a loop having at least one turn in a geometric  
5 space substantially separate from the printed circuit board.
- 1           2.       The loop antenna system of claim 1 wherein the antenna member is  
2 configured to partially reside on an outer edge of the printed circuit board.
- 1           3.       The loop antenna system of claim 2 wherein the antenna member on the  
2 outer edge of the printed circuit board comprises a trace.
- 1           4.       The loop antenna system of claim 1 wherein a turn of the loop comprises  
2 a wire.
- 1           5.       The loop antenna system of claim 1 wherein a turn of the loop is  
2 configured to reside on a second printed circuit board.
- 1           6.       The loop antenna system of claim 5 wherein the turn comprises a trace.
- 1           7.       The loop antenna system of claim 1 wherein the antenna member is  
2 configured to transmit or receive a radio frequency signal at a frequency substantially  
3 less than 100 Mhz.

1           8.     The loop antenna system of claim 1 wherein the loop is oriented to lay in  
2 a plane substantially parallel to the circuit board.

1           9.     The loop antenna system of claim 1 wherein the antenna member is  
2 configured to provide a plurality of loops.

1           10.    An antenna system comprising:  
2 a first means for transmitting radio frequency signals configured to form a first  
3 portion of a loop antenna having at least one turn; and  
4 a second means for transmitting radio frequency signals configured to form a  
5 second portion of the loop antenna in a geometric plane substantially  
6 separate from the first means.

1           11.    The antenna system of claim 10 wherein the first means comprises a wire.

1           12.    The antenna system of claim 10 wherein the first means comprises a trace  
2 on a circuit board.

1           13.    The antenna system of claim 10 wherein the second means comprises a  
2 trace on a second circuit board.

1           14.    The antenna system of claim 10 wherein the second means comprises a  
2 wire.

1           15.    The antenna system of claim 10 wherein the first and second means  
2 comprise a wire.

1           16.    The antenna system of claim 10 wherein the first and second means  
2   comprises a trace on at least one circuit board.

1           17.    The antenna system of claim 10 wherein the separate geometric plane is  
2   parallel to a plane described by the first portion of the loop antenna.

1           18.    The antenna system of claim 10, wherein the antenna system is  
2   configured to transmit or receive a radio frequency signal of less than 100 Mhz.

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